

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,365	04/06/2001	Michael Beyo	1268-125	3907

7590 08/04/2004

LOWE HAUPTMAN GILMAN & BERNER, LLP
Suite 310
1700 Diagonal Road
Alexandria, VA 22314

EXAMINER

LERNER, MARTIN

ART UNIT

PAPER NUMBER

2654

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/827,365	BEYO ET AL.
Examiner	Art Unit	
Martin Lerner	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1 to 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1 to 22 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 06 April 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>18 June 2004</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because credit card 28 is not illustrated in Figure 2. (See Specification, Page 5, Line 27).

Figure 4 is not described in the Specification. It is suggested Applicants cancel Figure 4, as it is only noted briefly in the Specification, Page 5, Lines 23 to 24. Thus, it would appear to be improper at this time for Applicants to add supporting description to the Specification for Figure 4.

Corrected drawing sheets are required in reply to the Office Action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheets should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, Applicants will be notified and informed of any

required corrective action in the next Office Action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicants are required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

On page 6, Line 25, there are embedded hyperlinks, which examples should be deleted.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1 to 4, 8, 9, 17, 19, and 20 are rejected under 35 U.S.C. 102(a) as being anticipated by *Atsmon et al. (WO '203)*.

Regarding independent claims 1 and 20, *Atsmon et al. (WO '203)* discloses a system and method for acoustic signaling, comprising:

“at least one device adapted for producing at least one acoustic tone” – an electronic device 30 communicates with computer 20 via sonic DTMF or DTMF-like

signals ("at least one acoustic tone") (Page 18, Lines 13 to 22; Page 19, Lines 12 to 15: Figure 1);

"a computer for receiving said acoustic tone and for producing a response in accordance with said tone, said computer including a microphone, a sound card, and specialized software" – computer 20 has a sound system 24, usually a sound card, connected to at least one microphone 24; a standard sound card is used to receive sonic signals from an electronic device, a toy, and/or another object (Page 18, Lines 1 to 22: Figure 1); in the preferred embodiment of the invention, the signal received on the computer is used to modify an executing program and/or to generate commands ("for producing a response") to another electronic device; in an exemplary application, a computer game in which a computer display responds to external sounds, such as bowling pins falling, is provided (Page 30, Lines 21 to 25);

"wherein the software contains instructions specifically associated with said device and wherein said software is adapted for checking characteristics of the acoustic device including the frequency, amplitude, and time frame of the acoustic tone and for comparing said characteristics with predetermined expected characteristics such that when the received characteristics match a combination of predetermined expected characteristics, a specific response is produced" – detection of a signal by a computer comprises binary detection of the signal; additionally or alternatively, more complex signal detection and analysis techniques may be implemented, for example, detection of signal amplitude, frequency, frequency spectrum, change in amplitude and/or duration, detection of a number of repetitions; such signal detection and/or analysis may be

performed on a computer that is in communication with the electronic device (Page 21, Lines 1 to 14); software on the computer performs the signal analysis (Page 33, Lines 5 to 11).

Regarding claim 2, *Atsmon et al. (WO '203)* discloses acoustic detection removes or disregards ambient sounds received by the microphone (Page 33, Lines 12 to 17); thus, the computer receives and checks incoming acoustic tones “while the sound card and microphone are being used for other computer applications”.

Regarding claim 3, *Atsmon et al. (WO '203)* discloses error checking, error correction, signal filtering, and correction for frequency hopping (Page 32, Line 22 to Page 33, Line 33); all of these signal processing techniques provide for “a predetermined tolerance level” for the characteristics of the signal.

Regarding claim 4, *Atsmon et al. (WO '203)* discloses a wireless bar-code reader, where a reader-type input device causes a computer to switch to a WWW page which displays details associated with the read information (“opening a web browser to a particular web site”) (Page 36, Lines 26 to 28).

Regarding claim 8, *Atsmon et al. (WO '203)* discloses acoustic communication for a toy (Page 19, Lines 16 to 18; Page 21, Lines 19 to 33), a smart card (“a credit card”) (Page 23, Lines 1 to 30), and a cellular phone (“a mobile phone”) (Page 23, Lines 13 to 16).

Regarding claim 9, *Atsmon et al. (WO '203)* discloses the transmitted and received signals may be sonic DTMF or DTMF-like signals (Page 19, Lines 14 to 15);

ultrasonic frequencies are above 22 kHz (Page 18, Lines 13 to 22), and DTMF signals are implicitly in the range below 22 kHz.

Regarding claim 17, *Atsmon et al.* (WO '203) discloses DTMF signals (Page 19, Lines 14 to 15), which are "a combination of acoustic tones"; also, signals are characterized by a number of repetitions of a binary signal (Page 21, Lines 1 to 7), so DTMF signals are "tones received one after the next".

Regarding claim 19, *Atsmon et al.* (WO '203) discloses suitable software is installed on computer 100, where the software is self installing (Page 30, Lines 4 to 5); implicitly, such software is programmed and installed by the manufacturer ("programmable by the distributor of the device").

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5 to 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Atsmon et al.* (WO '203) in view of *Sobeski et al.*

Concerning 5 to 7, *Atsmon et al.* (WO '203) discloses controlling a computer, but omits software for checking a date or time an acoustic signal is received, where a specific response is different according to individual pre-selected preferences of a user. However, it is generally well known to provide user preferences in a graphic user

interface (GUI), so that a program will respond differently according to user preferences. Specifically, *Sobeski et al.* teaches a context-based dynamic user interface, where a contextual engine determines the “context” of the current user experience. The context includes whether it is morning, or the weekend, or the summer (“date” or “time”). (Column 2, Line 58 to Column 3, Line 30) The contextual engine defines the set of contexts by user preferences. (Column 2, Line 13) *Sobeski et al.* suggests it is beneficial if the user could define an “at home” context which would be in general different from an “at work” context to provide information specifically tailored to the needs of the user. (Column 1, Lines 49 to 63) It would have been obvious to one having ordinary skill in the art to control a computer according to user preferences, a date, and time of day as taught by *Sobeski et al.* in the acoustical signaling method and system of *Atsmon et al.* (WO ‘203) for the purpose of providing information specifically tailored to the needs of a user.

Concerning claim 18, *Sobeski et al.* teaches user preferences (column 2, line 13), which are user programmable modifications to a computer program.

7. Claims 10 to 16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Atsmon et al.* (WO ‘203) in view of *Felder et al.*

Atsmon et al. (WO ‘203) generally discloses DTMF signals (Page 19, Lines 14 to 15), which are dual, or double, tones, and signals are characterized by a number of repetitions of a binary signal (Page 21, Lines 1 to 7), so DTMF signals are “nonsimultaneous” multitones, but omits specific characteristics of DTMF signals for

frequency range and duration. However, *Felder et al.* teaches ITU-compliant DTMF, where simultaneous dual tones are in the frequency range of 697 Hz to 1633 Hz (“between 600-1,700 Hz”) (Figure 1), and the duration is at least about 40 msec, which corresponds to a time frame between tones of at least about 0.05 seconds or 1/22 second (Column 2, Lines 29 to 42) Frames are sampled in a buffer. (Column 5, Lines 8 to 25) It would have been obvious to one having ordinary skill in the art to provide the characteristics of a DTMF signal taught by *Felder et al.* in the acoustical signaling method and system of *Atsmon et al.* (WO ‘203) for the purpose of accurately detecting DTMF signaling by an ITU-compliant standard.

8. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Atsmon et al.* (WO ‘203) in view of *Lester et al.*

Atsmon et al. (WO ‘203) omits checking a DTMF signal by comparing an amplitude of an acoustic tone with an average amplitude of neighboring tones to determine acceptability of the tone. However, *Lester et al.* teaches a method and system for distinguishing valid DTMF signals by analyzing whether an average amplitude of a second signal component (“neighboring tones”) exceeds a predetermined threshold. (Column 3, Lines 11 to 35) *Lester et al.* says the method is cost effective and reliable for distinguishing spurious DTMF noise from valid DTMF signals. (Column 3, Lines 7 to 11) It would have been obvious to one having ordinary skill in the art to compare the amplitude of DTMF signals to an average amplitude of neighboring tones as taught by *Lester et al.* in the acoustical signaling method and

system of *Atsmon et al.* (WO '203) for the purpose of distinguishing spurious DTMF noise from valid DTMF tones in a cost effective and reliable manner.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

Robinson, Truong et al., Scott et al., and Walsh et al. disclose related art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Lerner whose telephone number is (703) 308-9064. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703) 305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML
7/26/04

Martin Lerner
Martin Lerner
Examiner
Group Art Unit 2654